

ABSTRACT

A protective fabric of high penetration resistance is formed from a plurality of layered, densely woven base fabrics, each formed by tightly weaving multifilament yarns to obtain a warp yarn “density” or “cover” in excess of 100% at the center of the fill yarn, and a fill yarn density or cover preferably also in excess of 75%. The yarns themselves preferably comprise a high modulus, high breaking strength yarn of materials such as Kevlar, Spectra, or Vectran. The resultant layered fabric offers especially high penetration resistance to weapons such as ice picks and the like. Additional resistance to penetration by sharp knives is provided by interrupted coating the base fabric with an epoxy in such a manner as to inhibit penetration while providing drapability and breathability.

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